Reproductive Endocrinology
TRANSGENDER CARE

Stability of Weekly Intramuscular Estradiol Cypionate in a Transgender Woman

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Background: Transgender women often take estrogen with or without an antiandrogen to achieve the physical and physiological changes of estrogen. Estradiol may be administered through intramuscular (IM) injection weekly or every other week (1). It is thought that weekly IM estradiol may be more stable than every other week administration. The objective of this case was to evaluate the levels of IM estradiol cypionate when administered weekly.
Clinical Case: A 38-year-old transgender woman with a past medical history of gender dysphoria, type 2 diabetes mellitus, hyperlipidemia, obstructive sleep apnea compliant with continuous positive airway pressure, class 3 severe obesity, anxiety, depression and a non-smoker, presented for evaluation for hormone replacement therapy (HRT). The patient wished to begin IM estradiol because she heard it was most effective. She was started on estradiol cypionate 0.5 mL (2.5 mg) IM every Sunday along with spironolactone 100 mg daily. Approximately one month later, her estradiol was 65.8 pg/mL on a Saturday, total testosterone by LC-MS/MS was suppressed to 7 ng/dL (male: 300-1080 ng/dL, female: 9 - 55 ng/dL), FSH <0.3 mIU/mL (1.5-12.4), LH <0.3 mIU/mL (1.7-8.6). We increased her estradiol cypionate to 0.8 mL (4 mg) IM every Sunday to achieve goal estradiol levels up to 100-200 pg/mL. Approximately 2 months later, estradiol was up to 160 pg/mL on a Thursday. FSH and LH remained suppressed. Spironolactone was stopped. Patient gave her estradiol dose every Sunday between 4:15-7 PM. She injected on the lateral thigh switching sides every week. At the patient's request, blood was drawn on distinct days of the week going further from the day of injection as data collection progressed. The data we received: Monday: 153 pg/mL, Tuesday: 164 pg/mL, Wednesday: 147 pg/mL, Thursday: 122 pg/mL, Friday: 134 pg/mL, Saturday: 167 pg/mL. All labs were drawn between approximately 9:30-10:15 AM.
Conclusion: Our patient wanted to see just how stable weekly IM estradiol cypionate was. We found she was able to stay within target physiologic estrogen levels, 100-200 pg/mL, throughout the week. Overall mean +/- standard deviation levels for the six samples taken between injections were 148 +/- 17 pg/mL (range: 122-167). This case provides reassurance to clinicians concerned IM estradiol may cause supraphysiologic estradiol levels.
References: 1. Wylie C Hembree et al. Endocrine Treatment of Gender-Dysphoric/Gender-Incongruent Persons: An Endocrine Society Clinical Practice Guideline, The Journal of Clinical Endocrinology & Metabolism, Volume 102, Issue 11, 1 November 2017, Pages 3869-3903, https://doi.org/10.1210/jc.2017-01658

Reproductive Endocrinology
TRANSGENDER CARE

The Role of the Endocrinologist in the Gender Adequacy Process and the Barriers for Adequate Transgender Health Care

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The transgender universe comprises a wide range of individuals who do not identify with the gender role related to their birth sex, presenting distinct gender identities that transcend the binary concept of female and male. The follow-up of this population requires specific knowledge and training for its demands and peculiarities. Hormone therapy is a key point in the process of gender adequacy, and despite the increase in demand for specialized health services, there are still many barriers to full and free of prejudice health care. This is a descriptive and exploratory study about the characteristics of the professional training of the doctors involved in transgender health care, in particular the endocrinologist, and to enable an overview of the doctor-patient relationship and medical follow-up in the context of transsexuality in the Federal District. For this purpose, questionnaires were used for physicians: endocrinologists, family and community physicians, urologists, and psychiatrists; and transgender people residents of the Federal District. This study shows that most of the professionals involved in the process of gender adequacy, in particular the endocrinologist, do not present confidence or knowledge to accomplish it, and prejudice is still presented in a striking way in health care. In Federal District, services are not adequately structured for the care of this population, both from the perspective of doctors and transgender people. Moreover, in this sample, it was observed that the higher degree of specific knowledge in the subject increases the sensation of confidence of the professional to treat transgender people but does not correlate with the prejudice.

Reproductive Endocrinology
TRANSGENDER, DSD, AND TURNER SYNDROME

Copy Number Variations Are More Frequent on Chromosome 14 as Compared to X Chromosome in Suspected Turner Syndrome Girls - A Chromosomal Microarray Analysis

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Introduction: Turner syndrome(TS) is defined by complete/partial monosomy of X chromosome in association with classic clinical manifestations. Conventional karyotyping is the gold standard test for diagnosis of TS. However it is labour intensive and inaccurate for detecting mosaicism, marker chromosomes and sub-microscopic deletions/duplications. TS is characterized by heterogeneous phenotypes despite identical karyotypes and precise genotype-phenotype correlations have not yet been deciphered. Presence of TS specific features in absence of X chromosome abnormality, evokes the hypothesis of possible autosomal involvement. Here, we report detailed Chromosomal microarray (CMA) analysis of 47 girls with clinically suspected TS, using Affymetrix CytoScan 750K array. **Materials and Methods:** The clinical diagnosis